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Single-industry forestry communities: a national and regional (northern Ontario) profile

J. H. Smyth, M. Rodrigue and N. Pharand

Information Report O-X-390
Great Lakes Forestry Centre



THE GREAT LAKES FORESTRY CENTRE

The Great Lakes Forestry Centre is one of six regional establishments located across Canada and operated by Forestry Canada. The overall objective of Forestry Canada is to promote the preservation, enhancement and wise use of a healthy, attractive and bountiful forest resource and terrestrial environment for the economic and social benefit of all Canadians. The Centre pursues this objective by conducting two major programs: research and technical services and forestry development. Both programs address major problems affecting forest management and the forest environment primarily in Ontario, but because of the transprovincial nature of the forest resource, many elements of our research program are of national significance.

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It is recognized that forested land must be managed in the best public interest, not only for the wood production essential to our economy, but also for the recreational purposes that are so important to our social well-being. This must be achieved in a manner that will maintain or improve the quality of the forest environment and preserve it for generations to come.

**SINGLE-INDUSTRY FORESTRY COMMUNITIES:
A NATIONAL AND REGIONAL (NORTHERN ONTARIO) PROFILE**

J.H. SMYTH, M. RODRIGUE¹ and N. PHARAND¹

**GREAT LAKES FORESTRY CENTRE
ONTARIO REGION
FORESTRY CANADA
1989**

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ABSTRACT

The forest products sector contributes significantly to Canada's economy. In 1987 it accounted for 15% of the manufacturing sector's share (\$75 billion) of the nation's gross domestic product. Across Canada, over 900 communities rely totally or partially on forest sector activity. These communities play an important role in the country's economy and are a prominent feature of its social fabric.

This report provides a socioeconomic profile of 105 single-industry forestry communities with a population of over 1,000 people. In addition, it describes the resource-dependent region of northern Ontario. A typical single-industry community in this region is discussed with respect to its current and potential economic infrastructure.

RÉSUMÉ

Le secteur forestier occupe une place importante dans l'économie du Canada. En 1987, la production forestière représentait 15% de la part du produit intérieur brut canadien représentée par le secteur manufacturier (75 milliards de dollars). L'économie de plus de 900 villes de tous les coins du pays repose partiellement ou entièrement sur l'activité du secteur forestier. Ces collectivités jouent un important rôle socio-économique dans le pays.

Dans le rapport présenté ici, on adresse le profil socio-économique de 105 communautés à vocation économique uniquement forestière dont la population dépasse 1 000 personnes. On décrit aussi le nord de l'Ontario, une région dont l'économie dépend des ressources forestières. On analyse enfin l'infrastructure économique actuelle et potentielle d'une communauté à industrie unique considérée comme typique.

FOREWORD

This report was presented at the International Union of Forestry Research Organizations' Working Party meeting S.4.07-07--**Forestry and Rural Development in Industrialized Countries**--held in Garpenberg, Sweden from 2 to 7 October 1988.

The presentation was accompanied by a set of 64 slides that described or displayed many of the figures and graphs found throughout the report.

Since there is considerable interest in the topic of forestry-dependent communities in Canada at this particular time, it was deemed appropriate that this report be printed and made available to members of Canada's forestry community, and to all others who are interested in the topic.

ACKNOWLEDGMENT

The authors greatly appreciate the assistance of Mr. J. Atherton, E.B. Eddy Forest Products Ltd., Mr. M. Sheppard, town of Espanola, and Mr. D. Diebel, Espanola Board of Education, for their cooperation and assistance in providing information without which we could not have compiled the detailed profile of the town of Espanola.

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INTRODUCTION

Canada is a nation richly endowed with forests. These forests are part of the landscape of every province, and cover 44% of the country's total land area. Almost 80% of the nation's growing stock of 23 billion m³ is softwood; the remainder is hardwood. The area of forested land in Canada is three times as large as that of Europe and our wood volume is twice as great (Bonnor 1982). Since the early days of settlement and the beginning of the logging industry, the nation's economic, political, and social development has been inextricably linked to the forests. The forest products sector has continued to be a significant contributor to Canada's national and regional economic well-being since those early years. The majority of forestry firms competing in the world marketplace are modern, with state-of-the-art technology to manufacture the high-quality products demanded by the consumer.

In 1987, the forest products industry contributed 15% of the manufacturing sector's share (\$75 billion) of the nation's gross domestic product². The industry manufactured goods worth over \$35 billion³, and directly and indirectly employed more than 740,000 people, accounting for one in every 16 Canadian jobs (Jacques 1988 and footnotes 4, 5, and 6). Canada is the world's largest exporter of forest products, and provides 22% of all forest products traded in world markets (Anon. 1987). Major exports include wood pulp, newsprint, lumber, and other paper and board products such as book, writing and printing papers. Exports of forest products, which amounted to \$21 billion in 1987, represent 17% of all Canadian exports⁷.

Canada's forest products industry comprises over 7,900 companies from coast to coast⁴. These include a mixture of small and large industries, such as logging companies engaged in timber harvesting, pulp and paper mills, sawmills and planing mills, panelboard mills and secondary firms engaged in the manufacture of thousands of wood products used by all of us every day. The majority of Canada's forest industry is concentrated in the three largest provinces--Quebec, Ontario and British Columbia.

Single-industry communities play an important part in Canada's economic structure and are a prominent feature of its social fabric. Approximately 75% of Canada's 26 million people are concentrated in the larger metropolitan areas (Table 1). The remainder of the population is found in scattered rural farming areas as well as in remote, resource-based communities. Despite the importance of the forest products industry to Canada's economy, very little research or analysis has been done in connection with communities dependent on the forest sector.

²Statistics Canada. Gross domestic product, by industry. Cat. No. 15-001. Annual.

³Estimated from Statistics Canada, Census of Manufacturers, preliminary estimates for 1986.

⁴Statistics Canada. Canadian forestry statistics. Cat. No. 25-202. Annual.

⁵Statistics Canada. Logging industry. Cat. No. 25-2-201. Annual.

⁶Statistics Canada. The Labour Force. Cat. No. 71-001. Monthly.

⁷Statistics Canada. Exports by commodities. Cat No. 65-004. Monthly.

Table 1. Population of selected major urban communities, 1986.

<u>City^a</u>	<u>Population</u>
St. John's	161,901
Halifax	295,998
St. John	121,265
Quebec	603,267
Montreal	2,921,357
Ottawa/Hull	819,263
Toronto	3,427,168
Hamilton	557,029
Windsor	253,988
Sudbury	148,877
London	342,302
Thunder Bay	122,217
Winnipeg	625,304
Regina	186,521
Saskatoon	200,665
Edmonton	785,465
Calgary	671,326
Vancouver	1,380,729
Victoria	255,547

^a Population is for census metropolitan areas.

Source: Statistics Canada. 1986 Census of Canada. Preliminary estimate. Special request.

This report is in three parts. First, the results of a recent study (Pharand 1988) conducted by Forestry Canada (FORCAN) that presents a profile of Canadian communities dependent on the forest sector is highlighted; next, a resource-based region within the province of Ontario that depends to a very large extent on the forest sector for its economic well-being is described; and, finally, a typical single-industry forestry community in this same region is discussed in terms of its current and future infrastructure.

CANADIAN COMMUNITIES DEPENDENT ON THE FOREST SECTOR

In a recent study conducted by FORCAN it was found that approximately 900 communities across the country relied totally or partially on forest sector activity. Of these communities, 348 were identified as being almost totally dependent on forest sector activities for their economic survival and well-being (30% of the community labor force employed in the forest sector). Of these 348 communities, 105 had a population of over 1,000 (avg 1,500). It is these 105 communities, representing 70% of the total population of the 348 forestry communities identified, for which specific socioeconomic data were gathered and tabulated to construct a national aggregated profile of communities dependent on the forest sector. Though empirical in its approach, this

report does provide quantitative information about these communities that has not been available previously at the national level. Information about community distribution, age distribution, education, income, and employment levels will be discussed briefly. The data were taken from Canada's 1981 national census.

Community Distribution

It was found in the study that the 105 communities dependent on the forest sector are not evenly distributed across the country (Fig. 1). This was not unexpected. The four provinces that have a large forest industry--New Brunswick, Quebec, Ontario and British Columbia--have a significant share of the total number of forestry firms that operate nationally and, according to the analysis, contain 93% of the communities.

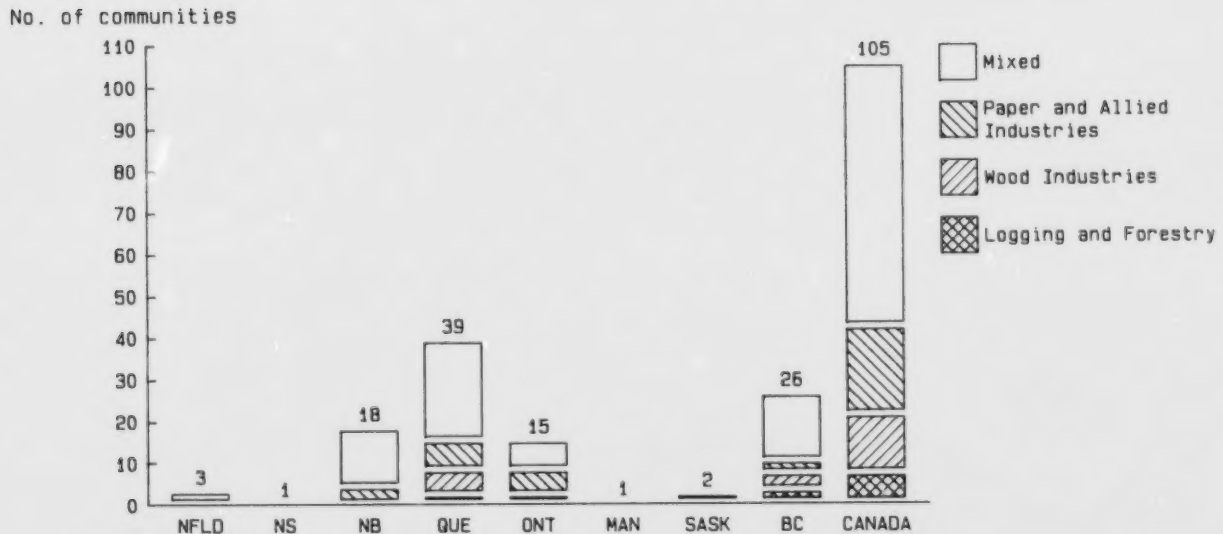


Figure 1. Distribution of Canadian communities dependent on the forest sector, 1981.

Age Distribution

The age-class breakdown used in the analysis consisted of four categories: 0-14, 15-24, 25-64 and 65+. As shown (Fig. 2), the age-class distribution for communities in the forest sector varies little from that of Canada as a whole. However, differences are to be noted in the 0-14 and 65+ age classes. The proportion of children as a percentage of the total popula-

tion is greater in communities dependent on the forest sector than in the nation as a whole. On the other hand, the proportion of senior citizens is lower in such communities than in the nation as a whole. It is difficult to determine whether or not the apparently normal distribution of age classes within communities dependent on the forest sector will, in fact, ensure an adequate work force for such communities in years to come. It is almost certain, however, that a percentage of older residents in the smaller communities will tend to relocate to the larger centers, where more and better facilities and services are offered.

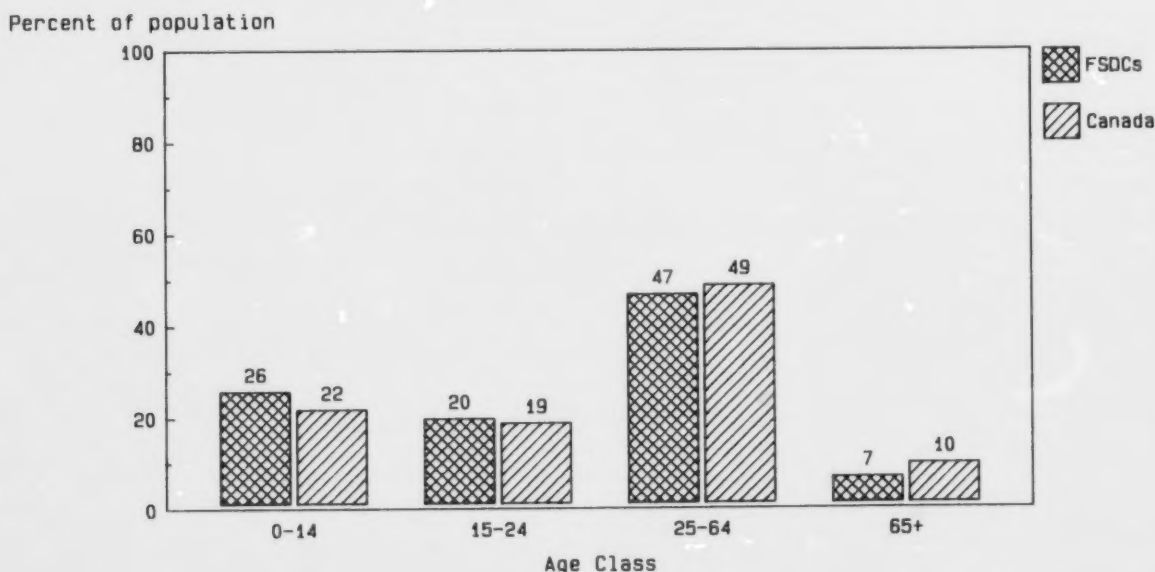


Figure 2. Age-class distribution in communities dependent on the forest sector and in Canada as a whole, 1981.

Education

Analysis of educational levels within communities dependent on the forest sector revealed that 55% of the population 15 years of age and over had not attained a high school diploma, in comparison with the Canadian average of 48% (Fig. 3). Furthermore, the proportion of the population with a university degree (4%) was half the Canadian average. The level of educational attainment in these communities was lower than the average for all communities in Canada. This characteristic is not unique to such communities but is generally common in rural areas throughout the country. Because the forest industry is technologically advanced, training and upgrading programs are a

continuing part of most company operations and are, in the majority of cases, very expensive and time-consuming.

Income

In general, forestry workers in Canada are paid better than the average Canadian worker. This is due mainly to the fact that many forestry workers belong to trade unions, which have been extremely successful in negotiating high wage settlements on behalf of their members over the past several decades. Workers in the pulp and paper industry are usually the highest paid, whereas workers in the secondary wood-using industries are the lowest paid.

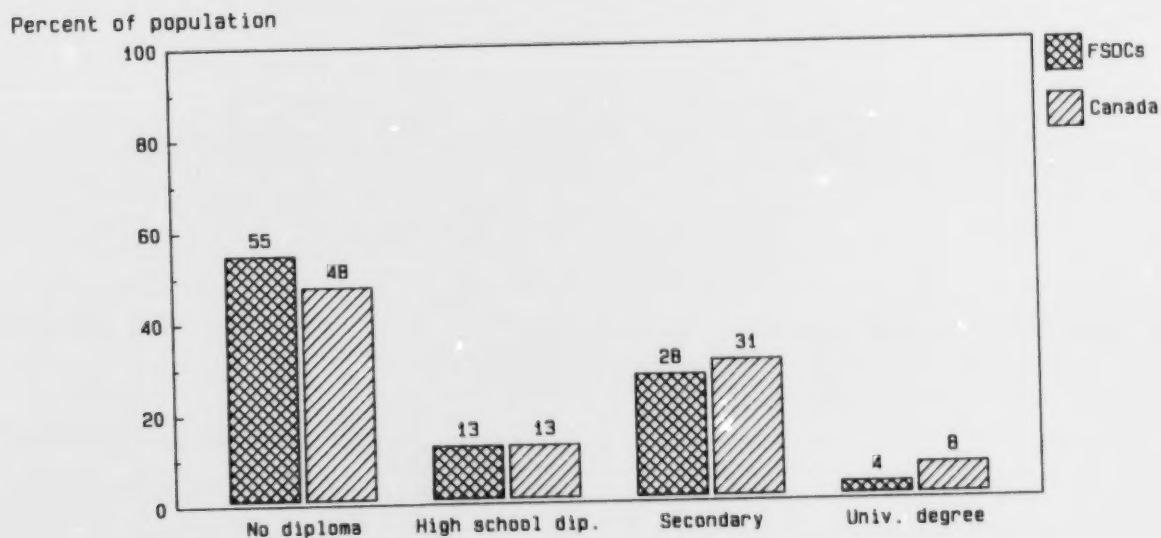


Figure 3. Educational levels in communities dependent on the forest sector and in Canada as a whole, 1981.

In the 105 communities studied, it was found that the average income of forestry workers was significantly greater (by almost 38%) than that of the average Canadian worker, and significantly greater than the average income of all other workers in these communities (Fig. 4). The study also showed that the average wage for workers in the paper and allied group in 1981 (\$21,128) was approximately equal to that of their co-workers in the logging and forestry group, but was 12% higher than that of workers in the wood industries group (Fig. 5).

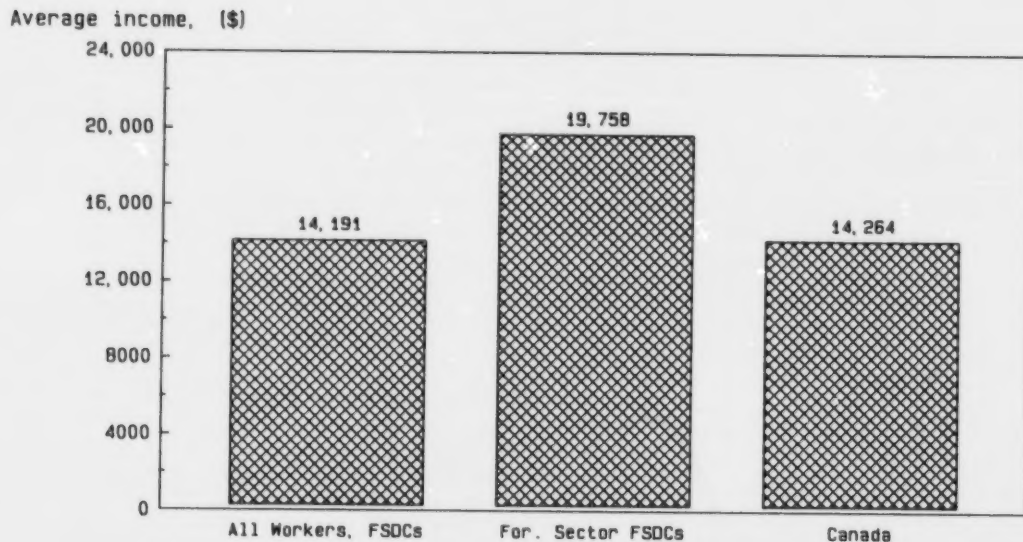


Figure 4. Comparison of average income in communities dependent on the forest sector and in Canada as a whole, 1981.

Unemployment Rate

The forest industry in Canada is, as in most countries, a very cyclical business that responds quickly to the vagaries of the marketplace. At the time the national census was taken (1981), the unemployment rate in the 105 communities studied was marginally higher than that in rural communities as a whole, and, in turn, was marginally higher than the average unemployment rate for Canada. Regardless of whether a regional or national economy is strong or depressed, rural unemployment levels are generally higher than those in the larger urban areas because of the absence of a diversified industrial base and, hence, the lack of employment opportunities. In 1981, the unemployment rate in the 105 communities studied was 11%, in comparison with a rate of 9% in rural communities as a whole, and 7% in all of Canada (Fig. 6). When the three forest sector industry groups were analyzed separately to determine the individual levels of unemployment, the rate for the logging and forestry group was almost double that for the paper and allied industries group, 17% vs 9% (Fig. 7). This difference is not surprising, however. The 1981 census was conducted in June, the month in which many of Canada's woodland workers were still unemployed because of seasonal layoffs in logging and other forestry-related activities. Traditionally, the higher levels of unemployment in

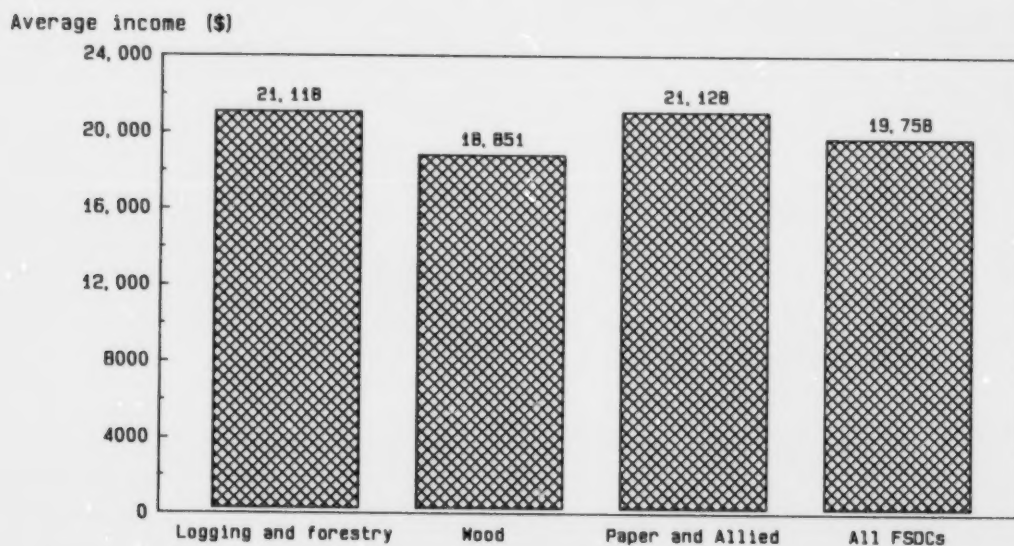


Figure 5. Comparison of average income, by major industry group, in communities dependent on the forest sector, 1981.

woodland operations occur during the winter and spring months (from December through to early to mid-June). Unemployment levels in logging during winter and spring can vary from 16 to 21% of the work force⁶.

A REGIONAL PROFILE

Ontario

Ontario, Canada's second largest province, is the richest and most populous. Its population of 9.0 million represents 36% of the national total. Ontario is essentially divided into two distinct regions. In southern Ontario, agriculture, manufacturing, financial services, and the greater percentage of the population are concentrated. Northern Ontario has nearly 90% of the land area but only 9% of the population, and is abundantly rich in natural resources.

Ontario is, and has been since of the days of Confederation, the leading manufacturing province in Canada. Its leading manufacturing industries are transportation equipment, food, chemical products, primary metals,

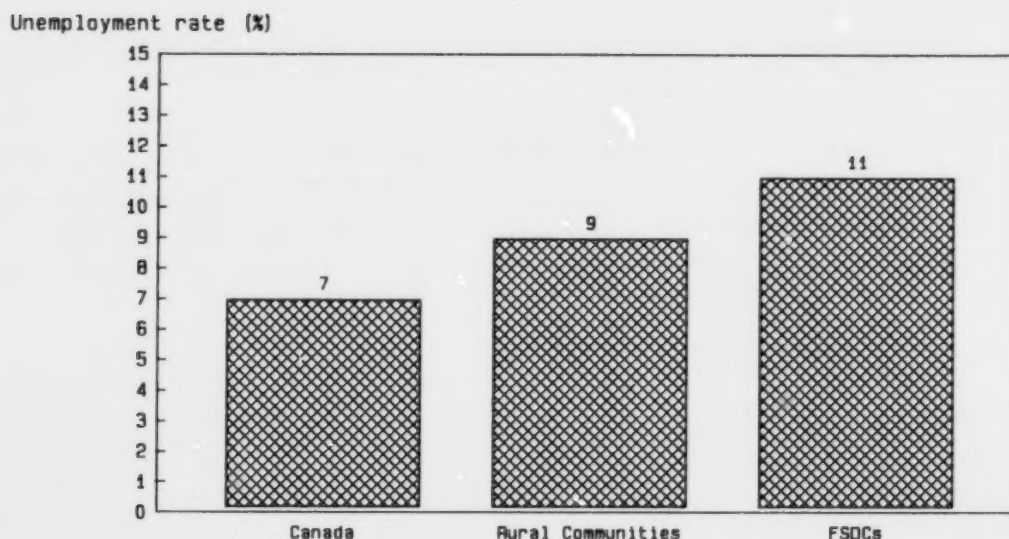


Figure 6. Comparison of unemployment rate in communities dependent on the forest sector, in rural communities, and in Canada, 1981.

electrical products, petroleum and coal products, and the forest products industry (paper, allied and wood industries groups combined) (Table 2). Recent (1985) statistics show that Ontario's manufacturing sector produced \$132 billion worth of goods (53% of the national total), and exported \$63 billion of these products (52% of the total for Canada) to almost every nation in the world (Table 3). The forest industry in this same year produced \$8 billion worth of products, and exported 37% of this value, mainly to the United States.

The largest component of the Ontario forest products industry is the paper and allied industries group (SIC Major Group 27). The pulp and paper industry is, by far, the largest and most important industry within this group and within the sector. The wood industries group (SIC Major Group 25) follows the paper and allied industries group in relative importance. Within this group, the sawmills and planing mills industry is the largest and most important, followed by the sash, door and other millwork industries.

Total direct employment in forest products manufacturing is more than 64,000, or about 7% of the total number of workers employed in the manufac-

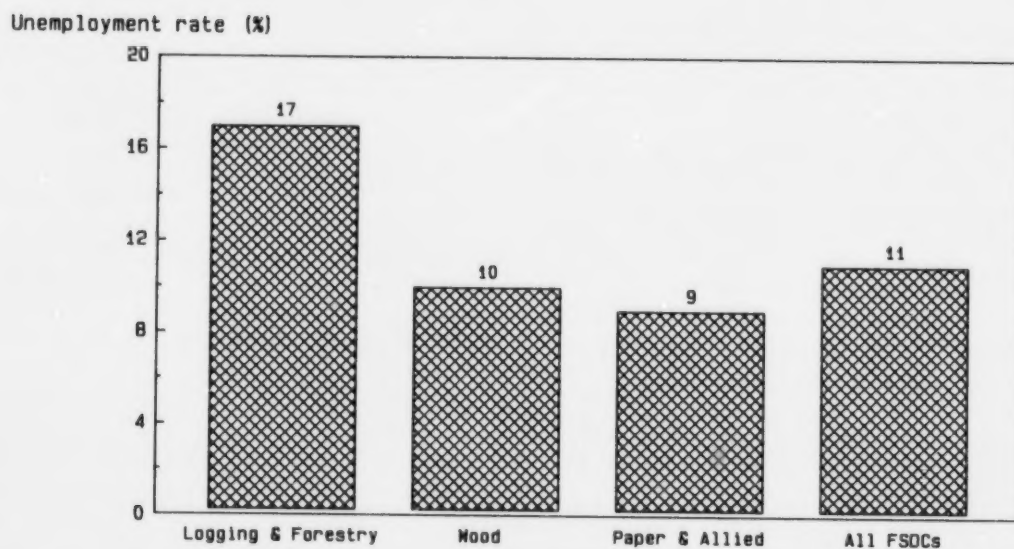


Figure 7. Unemployment levels by major industry group in communities dependent on the forest sector, 1981.

Table 2. Ontario's leading manufacturing industries, 1985.

Industry	Value of shipments (\$000,000)	Percentage of total
Transportation equipment	35,834	27.1
Food	12,947	9.8
Chemical and chemical products	10,688	8.1
Primary metals	9,863	7.5
Electrical industry and electrical products	8,706	6.6
Refined petroleum and coal products	8,325	6.3
Forest products	8,140	6.2
Fabricated metal products	7,938	6.0
All other	29,547	22.4
Total	131,988	100.0

Source: Statistics Canada. Manufacturing industries of Canada: national and provincial areas. Cat. No. 31-203.

Table 3. Ontario's leading exports, 1985.

Commodity	\$000,000	Percentage
Motor vehicles	20,109	33.9
Automotive parts	10,878	18.3
Non-ferrous metals	3,837	6.5
Forest products	3,377	5.7
Industrial machinery	2,303	3.9
Iron and steel	1,877	3.2
Food and agricultural products	1,818	3.1
Chemicals	1,515	2.6
Office machinery	1,471	2.5
Fuels and refined petroleum	1,262	2.1

Source: Ontario Exports and Imports, 1985. Ontario Ministry of Industry, Trade and Technology. Toronto, Ontario. 59 p.

turing sector⁸. An additional 8,500 workers are engaged in timber harvesting operations⁵.

Northern Ontario

Northern Ontario comprises 90% of the land base (892,000 km²) and 9% (793,000) of the population of the province. It is almost twice the size of Sweden. The economic structure of the region is based on the extraction of primary resources and on primary manufacturing. Seventy percent of manufacturing jobs are dependent on the resource-related sectors⁸.

Just over one half of the population is located in five of its largest urban communities (Table 4). In contrast to this is the predominance of small rural communities. There are 162 municipalities with populations of less than 3,000. Approximately 50 communities rely on a single resource industry and 35 of these have a population of less than 2,500 (Harvey 1988).

Northern Ontario can best be characterized as a region rich in natural resources (forests, minerals, water, fish, wildlife); highly dependent on its resource wealth for long-term economic security; extremely vulnerable to downturns in national and global economies; where distances between communities are large; where populations have declined since the mid-1970s (Fig. 8); where employment opportunities for young workers, particularly females, are few; where the unemployment rate usually exceeds the provincial average (Fig. 9); and where major markets for manufactured goods are distant from the conversion plant.

⁸Statistics Canada. Manufacturing industries of Canada: national and provincial areas. Cat. No. 31-203.

Table 4. Population of northern Ontario's major urban communities, 1986.

Community	Population
North Bay	50,082
Sudbury ^a	148,877
Timmins	46,282
Sault Ste. Marie	80,331
Thunder Bay ^a	122,217
Total	447,789
Total population, northern Ontario	793,218

^a census metropolitan area

Source: Statistics Canada. 1986 Census of Canada. Preliminary estimate. Special request.

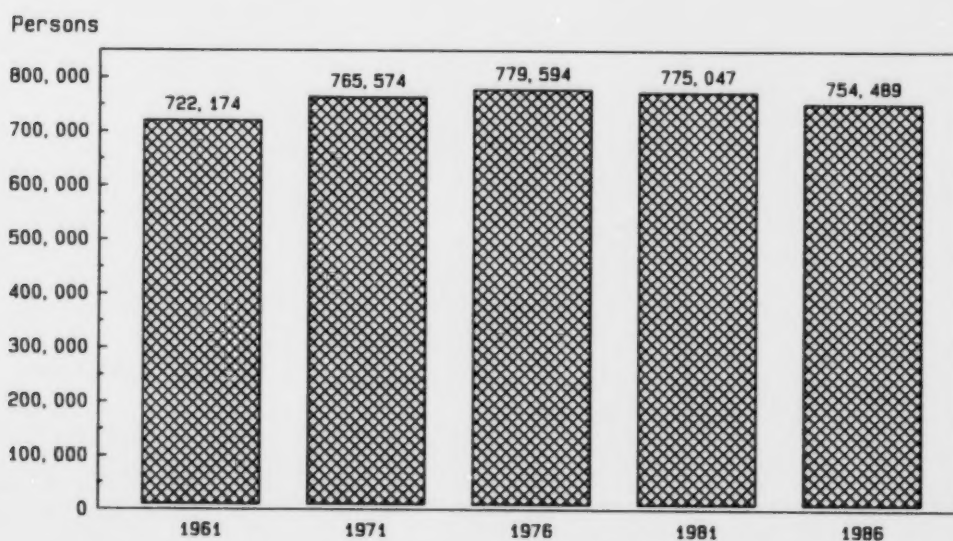


Figure 8. Population of northern Ontario, 1961-1986.

The forest sector is large and diverse, and draws its wood supply from an extensive forest estate at its doorstep. Total employment in the sector throughout northern Ontario is approximately 37,000. The pulp and paper industry is, by far, the largest and most important in terms of both employment and value of production. Of the 20 mills that produce pulp and/or paper in the province, 17 are located in the region. Of the eight newsprint mills, seven are located here. Of the 700+ licensed softwood and hardwood mills of

various sizes, vintage and technology, over 325 are located in northern Ontario. Eighty-seven percent of Ontario's total lumber production is softwood, and 91% of all softwood lumber is manufactured in northern Ontario. Hence, most of the larger sawmills are concentrated here. Most of panelboard (waferboard, veneer, and plywood) mills are also located in this region.

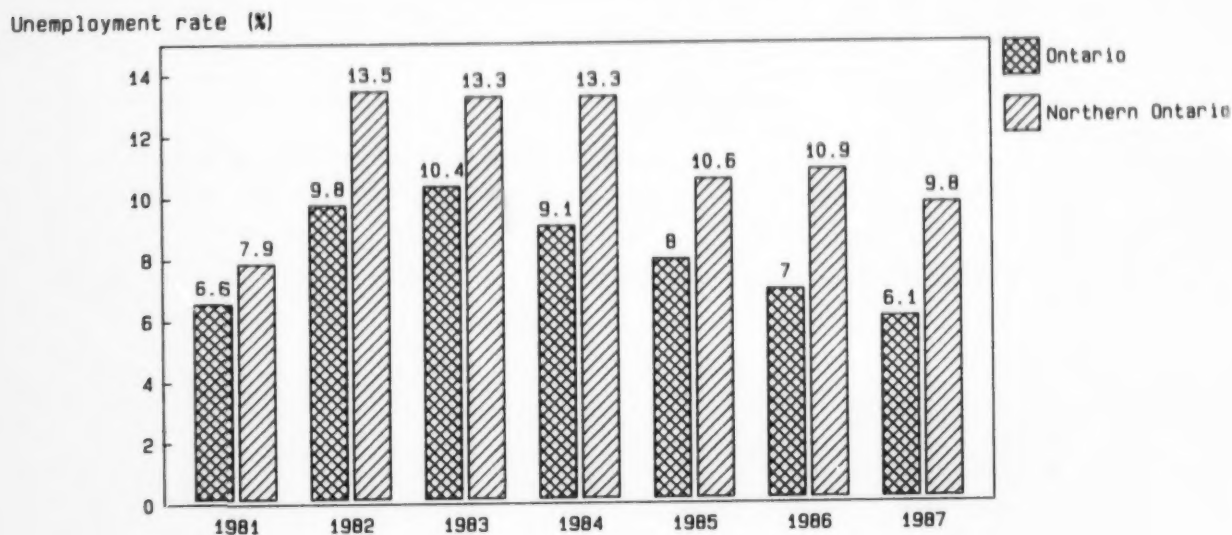


Figure 9. Unemployment rate in northern Ontario, compared with that in Ontario as a whole, 1981-1987.

The importance of the forest sector to the economy of northern Ontario is significant. Of added importance, however, is the fact that over 30 communities in the region depend totally or partially on the forest industry for their economic well-being and survival.

Espanola: A Single-industry Forestry Community

Espanola is a small town with a population of 5,432 located on the north shore of Lake Huron. It is typical of the small, single-industry rural forestry community found throughout Canada. Its economy is totally dependent on a single employer--the pulp and paper mill that employs about 31% of the local labor force. Like many communities dependent on a single industry for their economic security, Espanola strives to develop its industrial infrastructure, but has had little success to date. The town is located close to some of the most scenic areas in northern Ontario and is, by its nature, a

recreationist's paradise in any season. Although tourism offers many exciting opportunities, these have yet to be fully explored. A community profile follows.

a) Development. The town of Espanola began in 1899 when the first pulp and paper mill was under construction⁹. From then until 1958, Espanola was owned and operated as a company town without municipal status. In 1958, it was incorporated as a town, with a population of 4,562. After incorporation, the town's population grew (Fig. 10) as economic development and prosperity took hold, and it reached a high of just over 6,000 in 1971. For a variety of reasons, the town's population then declined to the present level of approximately 5,500.

b) Infrastructure. The town's infrastructure is similar, in many respects, to that of many larger urban communities, except for scale. It boasts a town hall, modern schools, a hospital, a library, a variety of large and small retail outlets, churches, restaurants, modern hotel accommoda-

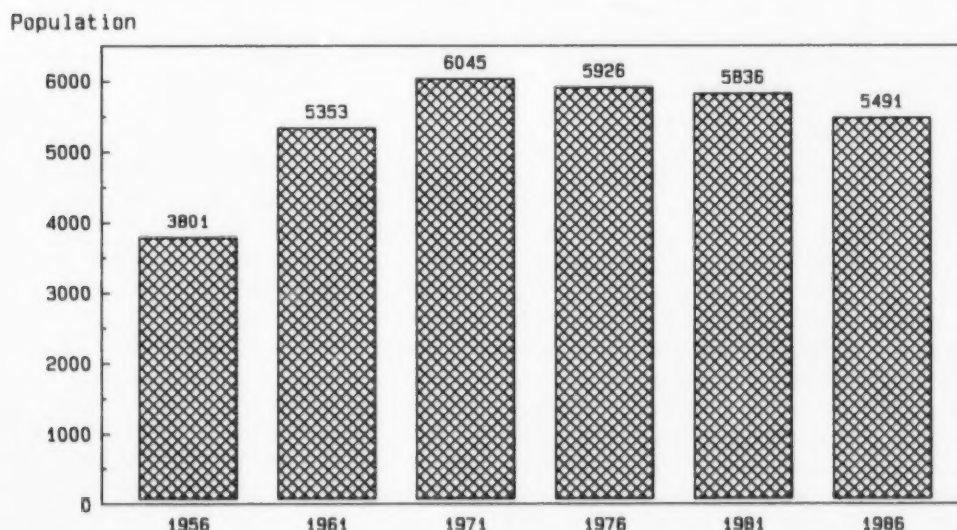


Figure 10. Population of the town of Espanola, 1956-1986.

tions, and modern and affordable housing. As in most small towns, it has a main street and a golf course--all in sight of the one industry that reminds residents and visitors alike who in town provides the "bread and butter". It has excellent highway access to major centers, but, like most small rural communities, does not have commercial air or rail passenger services.

⁹Sheppard, M.P., Clerk-Treasurer, town of Espanola. 1988. Personal communication on subject matter related to the town of Espanola.

c) Labor Force. Espanola's labor force is approximately 2,600. The participation rate for males is fairly high (74%), whereas that for females is low (<50%)¹⁰. The town's largest employer, E.B. Eddy Forest Products Ltd., employs approximately 950 workers in the mill and 440 workers in forestry operations¹¹. In addition, the company employs a substantial number of workers at its sawmill operation 24 km east of town. The second largest employer in town is the school system, with 140 teachers and 60 support staff¹². As a spin-off from the mill operations, there are approximately 200 retailing, professional, government, financial, recreational, and transportation establishments that employ hundreds of workers and provide goods and services to the community.

d) Education Levels. The profile of academic achievement by Espanola's population at the time of the 1981 census deviated somewhat, albeit slightly, from the average for the 105 communities dependent on the forest sector. The percentage of the population without a high school diploma was marginally higher than that of the average community in this category (Fig. 11). On the other hand, the number of people in Espanola with a high school diploma but no further education was somewhat higher than that of the other communities in the FORCAN study. Indeed, the percentage of the population with a post-secondary education (i.e., community college, trade school, etc.) was substantially lower than that of the other communities. The percentage of the population with a university degree did not differ greatly from that of the other communities studied.

e) Age Distribution. Espanola has approximately 25% of its population in the 0-14 age class, 67% of its population in the labor force age class (15-64), and 8% of the population in the 65+ age class (Fig. 12). The population structure of Espanola parallels that of the 105 forest communities dependent on the forest sector. There is very little one can extrapolate from the data except to reiterate that Espanola's population distribution is very similar to that found in communities across Canada that are dependent on the forest sector.

f) E.B. Eddy Forest Products Ltd.¹³ E.B. Eddy Forest Products Ltd.¹¹ is the present owner of the mill, having taken possession from the previous owner in 1969. The mill's capacity is 940 tonnes/day of bleached and unbleached hardwood and softwood kraft pulp. In addition, it produces 158 tonnes/day of bleached specialty papers. Markets are in both Canada and the United States. Consumption of wood fiber is approximately 1.5 million m³ (534,000 cunits) annually: equal amounts of hardwood and softwood are used. The mill draws its furnish of softwood in the form of wood chips (93%) mainly

¹⁰Statistics Canada. 1981. Census of Canada. Cat. No. 93-X-942. July 1983.

¹¹Atherton, J.B., General Manager, Fibre Supply, E.B. Eddy Forest Products Ltd. 1988. Personal communication on subject matter related to the company.

¹²Diebel, D.R., Director of Education, Espanola Board of Education, town of Espanola. 1988. Personal communication.

¹³The appendix to this report provides a history of the mill.

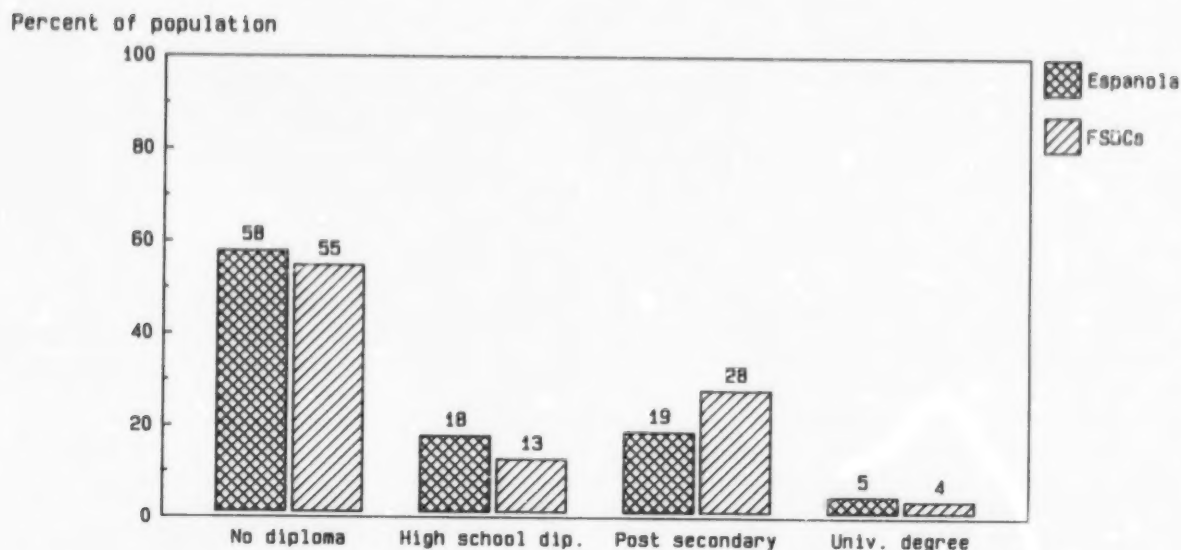


Figure 11. Educational levels, town of Espanola, compared with those of 105 other communities dependent on the forest sector, 1981.

from the company's two sawmill operations. The largest of these two mills is located some 24 km from Espanola, and is rated as the largest softwood sawmill operation in eastern Canada. It produces approximately 472,000 m³ (200 million fbm) of lumber annually. Wood supply for the Espanola mill and the two sawmills is secure, as the company controls approximately 18,000 km² of forest land under long-term forest management agreements with the province of Ontario, owner of the resource. The forest area under management by the company is equal to approximately 13% of the total forest land of Sweden.

As noted, there are approximately 950 employees in the mill, and an additional 440 in forestry operations. Total wages and salaries paid out to mill and forestry employees in 1987 were \$50 million. Since 90% of mill employees reside in the Espanola area, it is not too difficult to understand the significance of the mill payroll in the day-to-day life of the town.

In addition to the payroll, the company pays out a substantial amount in property taxes. In 1987, it paid \$2.5 million, (about 80% of the total non-residential taxes collected) to the municipality.

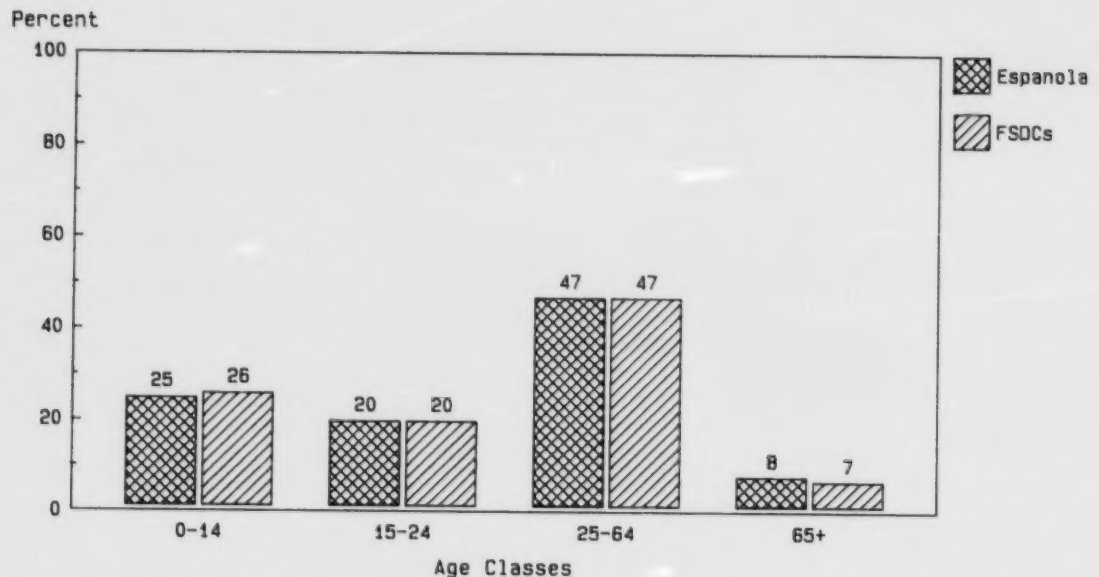


Figure 12. Age distribution, town of Espanola, compared with that of 105 other communities dependent on the forest sector, 1981.

At the present time, 18% of mill employees and 13% of forestry employees are 55 years of age or older. Over the next five years, 68 mill workers and 41 forestry workers will retire. Hence, opportunities for employment for a number of the younger people who will be graduating from high school or returning to Espanola from trade school or community college are encouraging. There does not appear to be any difficulty in recruiting workers for mill operations, but the story may be quite different when the company attempts to hire workers for forestry work. At present it is difficult to attract and hold workers on logging operations. Commuting distances and the rigors of camp life make it difficult to recruit to a steady and reliable labor force.

To remain competitive in the domestic and world marketplaces and to adhere to strict federal and provincial environmental regulations, the mill has spent almost \$300 million in capital funds over the past 10 years for expansion and upgrading. This commitment to modernize production facilities and to meet corporate obligations by furnishing an environmentally safe operation indicates that the company has every intention of remaining a major employer in the town.

g) The Future. Most communities have diversified economies and the decline of one or more of these is usually offset by the strength of others. Single-industry communities do not enjoy this luxury or security. For them, the major industry is the lifeblood of the local economy and such an industry is often vulnerable to economic fluctuations.

At present the international pulp and paper economy is buoyant; hence, Espanola's economy is both healthy and prosperous. However, experience in 1976 and, more recently, in 1981-1982, have made it clear that the town's economy is not isolated from changing domestic and world market conditions. Plant cutbacks in production and worker layoffs have not only had negative economic and social effects on the town itself, but have also reached out to affect businesses in nearby communities.

The town of Espanola recognizes that continued total dependence on the pulp and paper mill to sustain the current level of economic activity and stability over the long term is unrealistic⁹. Diversification of the economic base is a goal, but an extremely difficult one to achieve in view of the size and location of the town. There was a recent attempt to attract small, secondary industry but this campaign was unsuccessful. A major problem faced by any small company currently established, or anticipating establishment, in Espanola is that of competing for labor with the major employer, because of the high wages paid by the latter. Other endeavors being explored include interpretive centers, a museum and boat tours on the Spanish River, which flows through the town. Numerous tourists pass through the community each year, particularly during the summer, but very few take the time to stop and visit the various shops and other local areas of interest. It is hoped that tourist attractions such as those mentioned will provide enough incentive for these motorists to stop and spend some of their time and money in Espanola.

Diversification of the town's economy will be an expensive, time consuming, and long-term undertaking. There are government programs in place that can assist in the process, but the onus is on municipal leaders, the business community, community residents and the major employer, working together, to accomplish this.

SUMMARY

Communities dependent on the forest sector are an inherent part of the Canadian landscape and make significant contributions to the Canadian economy. In the past, very little socioeconomic information has been published about these communities, although at least two studies are under way within FORCAN to examine the socioeconomic characteristics of these communities in different regions of the country. What is known, however, is that many of these communities feel threatened economically because of their industry's vulnerability to changing world market conditions. Furthermore, there is concern about the adequacy of the wood supply to sustain operations if timber harvesting is restricted or withdrawn from the commercial forest base because of environmental regulations, rezoning, etc.

The most immediate concern and challenge for rural single-industry communities in Canada is the diversification of their economic base. Many communities are attacking this problem with enthusiasm and vigor, seizing opportunities that were not taken when times were prosperous. For other, more remote communities, diversification will be more difficult, if not impossible.

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APPENDIX

HISTORY OF E.B. EDDY FOREST PRODUCTS LTD. IN ESPANOLA

Construction of the original mill in Espanola began in 1898 and construction of the dam at Webbwood Falls on the Spanish River began in 1901. By 1904, the town of Espanola was laid out, the dam was completed and a groundwood mill began operation in 1905. The mill continued to produce groundwood until 1912, when the first two paper machines were brought into operation to manufacture newsprint.

In 1914, a further expansion took place and two additional paper machines were brought into operation. About this time the mill was merged with pulp and paper operations at Sault Ste. Marie and Sturgeon Falls under the name Spanish River Pulp and Paper Company. Expansion continued during the early 1920s and a fifth and sixth paper machine were brought into production in 1920.

In 1927 the company was acquired by Abitibi Power and Paper Company and the mill continued to produce groundwood and newsprint from spruce. Because of the drastic reduction in newsprint demand in 1929 and because the mill was one of the most costly in the Abitibi organization, it was shut down in 1932 and the company went into receivership.

At no time was the property abandoned and, in fact, for 13 years following the shutdown, a skeleton maintenance crew was employed on the property and the equipment was maintained with a view to producing newsprint once more if the market demand was sufficient.

In the early part of World War II, Espanola was selected, along with four other centers in Ontario, as a camp for internment of prisoners of war. These centers were chosen because of available accommodation for large groups of men, existing facilities, and location (it was far inland from the sea coast).

Twelve hundred prisoners were brought to Espanola. The majority of these were Luftwaffe personnel, shot down over England and the English Channel and captured by the Allies. A number of former prisoners have since been back to tour the mill. Apparently, all agreed that they were treated very well during their stay in Espanola. The food was plentiful and for recreation they engaged in athletic activities such as soccer. There were several attempts to escape, all unsuccessful. A lasting memento in the form of a map of the world was painted on a wall in the chemical storage area.

In 1943 the mill was bought by the Kalamazoo Vegetable Parchment (KVP) Company, and the prisoners were transferred to other camps. The KVP Company renovated the old mill and built a kraft pulp mill to make bleached pulp from jack pine and poplar. The kraft mill production was 227 tonnes/day and in July 1947, paper machine No. 1 was brought into production, followed by paper machine No. 2 several months later.

The KVP Company introduced many new grades of paper. For example, the mill produced bag papers, various colored wrapping papers, hanging paper (the basic stock used to make wallpaper), label papers, various fine papers and papers for lithography and other printing. Newsprint was phased out, as it became uneconomical to produce. In 1952 the company installed a machine for making parchment, which is the material used to wrap butter, margarine, lard, shortening and other greases. This material is also the basic stock for making waxed paper. In 1960, a third paper machine was installed.

Plans were made in the early 1960s to expand the kraft mill production to 544 tonnes/day. However, as this was happening in 1966, the KVP Company was bought by Brown Corporation of New York and the mill was renamed Brown Forest Industries Ltd. The same grades of pulp and paper were made as had been made by the KVP Company, except that the mill now began to produce hardwood pulp.

In 1969, the mill and all Canadian operations of Brown Corporation were sold to George Weston Ltd., and eventually became E.B. Eddy Forest Products Ltd. (the current name). Production increased to 635 tonnes/day. Paper production of any of 200 grades of specialty paper with a wide range of end uses (including food wrapping and medical packaging) is now over 91 tonnes/day. Parchment is still produced, and the company has the only parchment machine in Canada.

The Espanola mill has had a lengthy history of water pollution. From 1947 to 1952, it was involved in litigation over pollution of the Spanish River. The case was settled out of court, but it forced the provincial government to make considerable changes in the law, since the existing laws were found unsatisfactory to both plaintiff and defendant. The mill began to monitor the quality of the Spanish River during this period, and there is now a 35-year record of conditions in the Spanish River from Espanola to the mouth of the river. Pollution was reduced, but in 1968, as a result of expanded production, the quality of the river began to deteriorate. In 1970, E.B. Eddy Forest Products Ltd. took matters in hand and pollution was drastically reduced. Floor drains were tied into the system to recover spills and paper machine effluents were sent to a clarifier to recover stock. Woodroom effluents were sent to a lagoon to settle out suspended solids and many contaminated effluents in the pulp mill and bleach plants were recycled.

In 1977, a major step was taken to reduce significantly the biological oxygen demand (BOD) and the color of the mill effluent. This was achieved through the installation of an oxygen bleaching system in the softwood line, the first such system to be used in North America. It allowed 50% reduction of the BOD and of the color of the effluent discharged to the Spanish River. In 1980, a second oxygen system was installed on the hardwood line, and this resulted in further environmental benefits.

Installation of the two oxygen systems and the in-plant spill recovery system reduced the BOD and the color of the effluent discharged to the Spanish River below the level of those discharged from conventional bleached kraft mill.

The quality of the Spanish River has improved dramatically. The traditional oxygen sag in the river that resulted from the mill effluent has disappeared. The river abounds with excellent pickerel and bass. The Ontario Ministry of the Environment has concluded that the fish tainting problem that existed in the Spanish River until the installation of the mill's secondary system has disappeared. The mill is very proud of its environmental achievements to date and is constantly striving for cleaner water and air in Espanola.

In 1985, the mill modified its power boiler to allow the burning of pulverized, dried bark in suspension. The bark drying system is the first such installation in North America.

In 1986, paper machine No. 2 was completely rebuilt and modernized to facilitate improvements in papermaking capabilities and capacity.

The company entered into a forest management agreement with the Ontario Ministry of Natural Resources in August 1980. The agreement was the third signed in the province, but the first to incorporate a company's entire forest license. These agreements require the company to reforest all areas harvested, and thereby make the future wood supply the company's responsibility.

Prepared by E.B. Eddy Forest Products Ltd.
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